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Chapter I: Pollution Control Board**Subchapter c: Hazardous Waste Operating Requirements****[10 of 17] Part 724 Standards for Owners and Operators of Hazardous Waste Treatment, Storage and****Subpart N: Landfills****Section 724.414 Special Requirements for Bulk and Containerized Liquids****Section ▶724.414◀ Special Requirements for Bulk and Containerized Liquids**

a) This subsection corresponds with 40 CFR 264.314(a), which pertains to pre May 8, 1985 actions, a date long since passed. This statement maintains structural consistency with USEPA rules.

b) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not absorbents have been added) in any landfill is prohibited.

c) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", USEPA Publication No. SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111.

d) Containers holding free liquids must not be placed in a landfill unless:

1) All free-standing liquid:

A) has been removed by decanting or other methods;

B) has been mixed with sorbent or solidified so that free-standing liquid is no longer observed;
or

C) has been otherwise eliminated; or

2) The container is very small, such as an ampule; or

3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

4) The container is a lab pack as defined in Section 724.416 and is disposed of in accordance with Section 724.416.

e) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in subsection (e)(1) of this Section; materials that pass one of the tests in subsection (e)(2) of this Section; or materials that are determined by the Board to be nonbiodegradable through the 35 Ill. Adm. Code 106 adjusted standard process.

1) Nonbiodegradable sorbents are:

A) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal (activated carbon); or

THOMPSON COBURN

Thompson Coburn LLP
Attorneys at Law

One Mercantile Center
St. Louis, Missouri 63101-1693
314-552-6000
FAX 314-552-7000
www.thompsoncoburn.com

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B) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstrene and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

C) Mixtures of these nonbiodegradable materials.

2) Tests for nonbiodegradable sorbents:

A) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a) "Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi", incorporated by reference in 35 Ill. Adm. Code 720.111;

B) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b) "Standard Practice for Determining Resistance of Plastics to Bacteria", incorporated by reference in 35 Ill. Adm. Code 720.111; or

C) The sorbent material is determined to be non-biodegradable under OECD test 301B (CO[2] Evolution (Modified Sturm Test)), incorporated by reference in 35 Ill. Adm. Code 720.111.

f) The placement of any liquids that is not a hazardous waste in a landfill is prohibited (35 Ill. Adm. Code 729.311).

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Subchapter c: Hazardous Waste Operating Requirements

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Subpart N: Landfills

Section 724.401 Design and Operating Requirements.

Section 724.401 Design and Operating Requirements.

(a) Any landfill that is not covered by subsection (c) below or 35 Ill. Adm. Code 725.401(a) must have a liner system for all portions of the landfill (except for existing portions of such landfill). The liner system must have:

(1) A liner that is designed, constructed and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the landfill. The liner must be constructed of materials that prevent wastes from passing into the liner during the active life of the facility. The liner must be:

(A) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation and the stress of daily operation;

(B) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression or uplift; and

(C) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(2) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained and operated to collect and remove leachate from the landfill. The Agency shall specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must be:

(A) Constructed of materials that are:

(i) Chemically resistant to the waste managed in the landfill and the leachate expected to be generated; and

(ii) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials and by any equipment used at the landfill; and

(B) Designed and operated to function without clogging through the scheduled closure of the landfill.

(b) The owner or operator will be exempted from the requirements of subsection (a) above if the Board grants an adjusted standard pursuant to 35 Ill. Adm. Code 106. Subpart G. The level of justification is a demonstration by the owner or operator that alternative design or operating practices, together with local characteristics, will prevent the migration of any hazardous constituents (see Section 724.193) into the groundwater or surface water at any future time. In deciding whether to grant an adjusted standard the Board will consider:

(1) The nature and quantity of the wastes;

(2) The proposed alternate design and operation;

(3) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the landfill and groundwater or surface water; and

(4) All other factors which influence the quality and mobility of the leachate produced and the potential for it to migrate to groundwater or surface water.

(c) The owner or operator of each new landfill unit on which construction commences after January 29, 1992, each lateral expansion of a landfill unit on which construction commences after July 29, 1992, and each replacement of an existing landfill unit that is to commence reuse after July 29, 1992, shall install two or more liners and a leachate collection and removal system above and between such liners. "Construction commences" is as defined in 35 Ill. Adm. Code 720.110 under "existing facility".

1) Liner requirements.

A) The liner system must include:

i) A top liner designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into such liner during the active life and post-closure care period; and

ii) A composite bottom liner, consisting of at least two components. The upper component must be designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The lower component must be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component must be constructed of at least 3 feet (91 cm) of compacted soil material with a hydraulic conductivity of no more than 1×10^{-7} cm/sec.

B) The liners must comply with subsections (a) (1) (A), (B) and (C) above.

2) The leachate collection and removal system immediately above the top liner must be designed, constructed, operated and maintained to collect and remove leachate from the landfill during the active life and post-closure care period. The Agency will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must comply with subsections (c) (3) (C) and (D) below.

3) The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system (LDS). This LDS must be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a LDS in this subsection are satisfied by installation of a system that is, at a minimum:

A) Constructed with a bottom slope of one percent or more;

B) Constructed of granular drainage materials with a hydraulic conductivity of 1×10^{-2} cm/sec or more and a thickness of 12 inches (30.5 cm) or more; or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-3} m²/sec or more;

C) Constructed of materials that are chemically resistant to the waste managed in the landfill and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials and equipment used at the landfill;

D) Designed and operated to minimize clogging during the active life and post-closure care period; and

E) Constructed with sumps and liquid removal methods (e.g., pumps) of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit must have its own sump(s). The design of each sump and removal system must provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

4) The owner or operator shall collect and remove pumpable liquids in the LDS sumps to minimize the head on the bottom liner.

5) The owner or operator of a LDS that is not located completely above the seasonal high water table shall demonstrate that the operation of the LDS will not be adversely affected by the presence of ground water.

d) Subsection (c) above will not apply if the owner or operator demonstrates to the Agency, and the Agency finds for such landfill, that alternative design or operating practices, together with location characteristics:

1) Will prevent the migration of any hazardous constituent into the groundwater or surface water at least as effectively as the liners and leachate collection and removal systems, specified in subsection (c) above; and

2) Will allow detection of leaks of hazardous constituents through the top liner at least as effectively.

e) The Agency shall not require a double liner as set forth in subsection (c) above for any monofill, if:

1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which render the wastes hazardous for reasons other than the toxicity characteristics in 35 Ill. Adm. Code 721.124, with USEPA hazardous waste numbers D004 through D017; and

2) No migration demonstration.

A) Design and location requirements.

i) The monofill has at least one liner for which there is no evidence that such liner is leaking.

ii) The monofill is located more than one-quarter mile from an underground source of drinking water (as that term is defined in 35 Ill. Adm. Code 702.110).

iii) The monofill is in compliance with generally applicable groundwater monitoring requirements for facilities with RCRA permits; or

B) The owner or operator demonstrates to the Board that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into groundwater or surface water at any future time.

f) The owner or operator of any replacement landfill unit is exempt from subsection (c) above if:

1) The existing unit was constructed in compliance with the design standards of 35 Ill. Adm. Code 724.401 (c), (d), and (e), as amended in R86-1, at 10 Ill. Reg. 14119, effective August 12, 1986; and

BOARD NOTE: The cited subsections implemented the design standards of sections 3004 (o) (1) (A) (i) and (o) (5) of the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.).

2) There is no reason to believe that the liner is not functioning as designed.

g) The owner or operator shall design, construct, operate and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

h) The owner or operator shall design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24 hour, 25-year storm.

i) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

j) If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator shall cover or otherwise manage the landfill to control wind dispersal.

k) The Agency shall specify in the permit all design and operating practices that are necessary to ensure that the requirements of this Section are satisfied.

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Subchapter C: Hazardous Waste Operating Requirements

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Subpart B: General Facility Standards

Section 724.119 Construction Quality Assurance Program

Section 724.119 Construction Quality Assurance Program

a) Construction quality assurance (COA) program.

1) A COA program is required for all surface impoundment, waste pile and landfill units that are required to comply with Sections 724.321(c) and (d), 724.351(c) and (d), and 724.401(c) and (d). The program must ensure that the constructed unit meets or exceeds all design criteria and specifications in the permit. The program must be developed and implemented under the direction of a COA officer who is a registered professional engineer.

2) The COA program must address the following physical components, where applicable:

A) Foundations;

B) Dikes;

C) Low-permeability soil liners;

D) Geomembranes (flexible membrane liners);

E) Leachate collection and removal systems and leak detection systems; and

F) Final cover systems.

b) Written COA plan. The owner or operator of units subject to the COA program under subsection (a) above must develop and implement a written COA plan. The plan must identify steps that will be used to monitor and document the quality of materials and the condition and manner of their installation. The COA plan must include:

1) Identification of applicable units, and a description of how they will be constructed.

2) Identification of key personnel in the development and implementation of the COA plan, and COA officer qualifications.

3) A description of inspection and sampling activities for all unit components identified in subsection (a)(2) above, including observations and tests that will be used before, during and after construction to ensure that the construction materials and the installed unit components meet the design specifications. The description must cover: Sampling size and locations; frequency of testing; data evaluation procedures; acceptance and rejection criteria for construction materials; plans for implementing corrective measures; and data or other information to be recorded and retained in the operating record under Section 724.173.

c) Contents of program.

1) The COA program must include observations, inspections, tests and measurements sufficient to ensure:

A) Structural stability and integrity of all components of the unit identified in subsection (a)(2) above;

B) Proper construction of all components of the liners, leachate collection and removal system, leak detection system and final cover system, according to permit specifications and good engineering practices and proper installation of all components (e.g., pipes) according to design specifications;

C) Conformity of all materials used with design and other material specifications under Sections 724.321, 724.351 and 724.401.

2) The COA program must include test fills for compacted soil liners, using the same compaction methods as in the full scale unit, to ensure that the liners are constructed to meet the hydraulic conductivity requirements of Sections 724.321(c)(1)(A)(ii), 724.351(c)(1)(A)(ii) or 724.401(c)(1)(A)(ii) in the field. Compliance with the hydraulic conductivity requirements must be verified by using in-situ testing on the constructed test fill. The Agency shall accept an alternative demonstration, in lieu of a test fill, where data are sufficient to show that a constructed soil liner will meet the hydraulic conductivity requirements of Sections 724.321(c)(1)(A)(ii), 724.351(c)(1)(A)(ii) or 724.401(c)(1)(A)(ii) in the field.

d) Certification. Waste must not be received in a unit subject to Section 724.119 until the owner or operator has submitted to the Agency by certified mail or hand delivery a certification signed by the COA officer that the approved COA plan has been successfully carried out and that the unit meets the requirements of Sections 724.321(c) or (d), 724.351(c) or (d), or 724.401(c) or (d); and the procedure in 35 Ill. Adm. Code 703.247(b) has been completed. Documentation supporting the COA officer's certification must be furnished to the Agency upon request.

Title 35: Environmental Protection

Subtitle G: Waste Disposal

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Subchapter c: Hazardous Waste Operating Requirements

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[3 of 17] Part 724 Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities

Subpart F: Releases from Solid Waste Management Units

Section 724.190 Applicability

a) Types of units.

1) Except as provided in subsection (b), the regulations in this Subpart apply to owners and operators of facilities that treat, store or dispose of hazardous waste. The owner or operator shall satisfy the requirements identified in subsection (a)(2) for all wastes (or constituents thereof) contained in solid waste management units at the facility regardless of the time at which waste was placed in such units.

2) All solid waste management units must comply with the requirements in Section 724.201. A surface impoundment, waste pile, land treatment unit or landfill that receives hazardous waste after July 26, 1982 (hereinafter referred to as a "regulated unit") must comply with the requirements of Sections 724.191 through 724.200, in lieu of Section 724.201 for purposes of detecting, characterizing and responding to releases to the uppermost aquifer. The financial responsibility requirements of Section 724.201 apply to regulated units.

b) The owner or operator's regulated unit or units are not subject to regulation for releases into the uppermost aquifer under this Subpart if:

1) The owner or operator is exempted under Section 724.101; or

2) The owner or operator operates a unit which the Agency finds:

A) Is an engineered structure.

B) Does not receive or contain liquid waste or waste containing free liquids.

C) Is designed and operated to exclude liquid, precipitation, and other runoff and runoff.

D) Has both inner and outer layers of containment enclosing the waste.

E) Has a leak detection system built into each containment layer.

F) The owner or operator will provide continuing operation and maintenance of these leak detection systems during the active life of the unit and the closure and post-closure care periods.

G) To a reasonable degree of certainty, will not allow hazardous constituents to migrate beyond the outer containment layer prior to the end of the post-closure care period; or

3) The Agency finds, pursuant to Section 724.380(d), that the treatment zone of a land treatment unit that qualified as a regulated unit does not contain levels of hazardous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of Section 724.378 has not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption under this paragraph can only relieve an owner or operator of responsibility to meet the requirements of this Subpart during the post-closure care period; or

4) The Agency finds that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit (including the closure period) and the post-closure care period specified under Section 724.217. This demonstration must be certified by a qualified geologist or geotechnical engineer. In order to provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator shall base any predictions made under this paragraph on assumptions that maximize the rate of liquid migration; or

5) The owner or operator designs and operates a pile in compliance Section 724.350(c).

c) The regulations under this Subpart apply during the active life of the regulated unit (including the closure period). After closure of the regulated unit, the following is true of the applicability of the regulations in this Subpart:

1) Do not apply if all waste, waste residues, contaminated containment system components and contaminated subsoils are removed or decontaminated at closure;

2) Apply during the post-closure care period under Section 724.217 if the owner or operator is conducting a detection monitoring program under Section 724.198; or

3) Apply during the compliance period under Section 724.196 if the owner or operator is conducting a compliance monitoring program under Section 724.199 or a corrective action program under Section 724.200.

d) This Subpart applies to miscellaneous units if necessary to comply with Sections 724.701 through 724.703.

e) The regulations of this Subpart F apply to all owners and operators subject to the requirements of 35 Ill. Adm. Code 703.161, when the Agency issues a post-closure care permit or other enforceable document that contains alternative requirements for the facility, as provided in 35 Ill. Adm. Code 703.161. Where alternative requirements apply to a facility, a reference in this Subpart to "in the permit" shall mean "in the enforceable document."

f) A permit or enforceable document can contain alternative requirements for groundwater monitoring and corrective action for release to groundwater applicable to a regulated unit that replace all or part of the requirements of 35 Ill. Adm. Code 724.191 through 724.200, as provided under 35 Ill. Adm. Code 703.161, where the Board or Agency determines the following:

1) The regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management units (or areas of concern) are likely to have contributed to the release; and

2) It is not necessary to apply the groundwater monitoring and corrective action requirements of 35 Ill. Adm. Code 724.191 through 724.200 because alternative requirements will adequately protect human health and the environment.

Section 724.191 Required Programs.

(a) Owners and operators subject to this Subpart shall conduct a monitoring and response program as follows:

(1) Whenever hazardous constituents under Section 724.193 from a regulated unit are detected at a compliance point under Section 724.195, the owner or operator shall institute a compliance monitoring program under Section 724.199. "Detected" is defined as statistically significant evidence of contamination as described in Section 724.198(f).

(2) Whenever the groundwater protection standard under Section 724.192 is exceeded, the owner or operator shall institute a corrective action program under Section 724.200. "Exceeded" is defined as statistically significant evidence of increased contamination as described in Section 724.199(f).

(3) Whenever hazardous constituents under Section 724.193 from a regulated unit exceed concentration limits under Section 724.194 in groundwater between the compliance point under Section 724.195 and the downgradient facility property boundary, the owner or operator shall institute a corrective action program under Section 724.200; or

(4) In all other cases, the owner or operator shall institute a detection monitoring program under Section 724.198.

(b) The Agency will specify in the facility permit the specific elements of the monitoring and response program. The Agency may include one or more of the programs identified in paragraph (a) in the facility permit as may be necessary to protect human health and the environment and will specify the circumstances under which each of the programs will be required. In deciding whether to require the owner or operator to be prepared to institute a particular program, the Agency will consider the potential adverse effects on human health and the environment that might occur before final administrative action of a permit modification application to incorporate such a program could be taken.

Section 724.192 Groundwater Protection Standard.

The owner or operator shall comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents under Section 724.193 detected in the groundwater from a regulated unit do not exceed the concentration limits under Section 724.194 in the uppermost aquifer underlying the waste management area beyond the point of compliance under Section 724.195 during the compliance period under Section 724.196. The Agency will establish this groundwater protection standard in the facility permit when hazardous constituents have been detected in the groundwater.

Section 724.193 Hazardous Constituents.

(a) The Agency will specify in the facility permit the hazardous constituents to which the groundwater protection standard of Section 724.192 applies. Hazardous constituents are constituents identified in Appendix H of 35 Ill. Adm. Code 721 that have been detected in groundwater in the uppermost aquifer underlying a regulated unit and that are reasonably expected to be in or derived from waste contained in a regulated unit, unless the Agency has excluded them under paragraph (b).

(b) The Agency will exclude a 35 Ill. Adm. Code 721, Appendix H constituent from the list of hazardous constituents specified in the facility permit if it finds that the constituent is not capable of posing a substantial present or potential hazard to human health or the environment. In deciding whether to grant an exemption, the Agency will consider the following:

(1) Potential adverse effects on groundwater quality, considering:

(A) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(B) The hydrogeological characteristics of the facility and surrounding land;

(C) The quantity of groundwater and the direction of groundwater flow;

- (D) The proximity and withdrawal rates of groundwater users;
- (E) The current and future uses of groundwater in the area;
- (F) The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;
- (G) The potential for health risks caused by human exposure to waste constituents;
- (H) The potential damage to wildlife, crops, vegetation and physical structures caused by exposure to waste constituents;
- (I) The persistence and permanence of the potential adverse effects; and
- (2) Potential adverse effects on hydraulically-connected surface water quality, considering:
 - (A) The volume and physical and chemical characteristics of the waste in the regulated unit;
 - (B) The hydrogeological characteristics of the facility and surrounding land;
 - (C) The quantity and quality of groundwater, and the direction of groundwater flow;
 - (D) The patterns of rainfall in the region;
 - (E) The proximity of the regulated unit to surface waters;
 - (F) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;
 - (G) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;
 - (H) The potential for health risks caused by human exposure to waste constituents;
 - (I) The potential damage to wildlife, crops, vegetation and physical structures caused by exposure to waste constituents; and
 - (J) The persistence and permanence of the potential adverse effects.
- (c) In making any determination under paragraph (b) about the use of groundwater in the area around the facility, the Agency will consider any identification of underground sources of drinking water and exempted aquifers made under 35 Ill. Adm. Code 704.123.
- (d) The Agency shall make specific written findings in granting any exemptions under paragraph (b).

Section 724.194 Concentration Limits.

(a) The Agency will specify in the facility permit concentration limits in the groundwater for hazardous constituents established under Section 724.193. The concentration of a hazardous constituent:

- (1) Must not exceed the background level of that constituent in the groundwater at the time that limit is specified in the permit; or
- (2) For any of the constituents listed in Table 1, must not exceed the respective value given in that Table if the background level of the constituent is below the value given in Table 1; or
- (3) Must not exceed an alternate limit established by the Agency under paragraph (b).

TABLE 1 — MAXIMUM CONCENTRATION OF CONSTITUENTS FOR GROUNDWATER PROTECTION

Constituent	Maximum Concentration (mg/l)
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium	0.05
Lead	0.05
Mercury	0.002
Selenium	0.01
Silver	0.05
Endrin (1,2,3,4,10-10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,,8,8a-octahydroendo, endo-1,4: 5,8-dimethanonaphthalene)	0.0002
Lindane (1,2,3,4,5,6-hexachloro-cyclohexane, gamma isomer)	0.004
Methoxychlor (1,1,1-Trichloro-2,2'-bis-(p-methoxyphenyl)-ethane)	0.1
Toxaphene (Technical chlorinated camphene, 67 -69 percent chlorine)	0.005
2,4-D (2,4-Dichlorophenoxyacetic acid)	0.1
2,4,5-TP (Silvex) (2,4,5-Trichloro-phenoxypropionic acid)	0.01

(b) The Agency will establish an alternate concentration limit for a hazardous constituent if it finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded. In establishing alternate concentration limits, the Agency will consider the following factors:

(1) Potential adverse effects on groundwater quality, considering:

(A) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(B) The hydrogeological characteristics of the facility and surrounding land;

(C) The quantity of groundwater and the direction of groundwater flow;

(D) The proximity and withdrawal rates of groundwater users;

(E) The current and future uses of groundwater in the area;

(F) The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;

(G) The potential for health risks caused by human exposure to waste constituents,

(H) The potential damage to wildlife, crops, vegetation and physical structures caused by exposure to waste constituents;

(I) The persistence and permanence of the potential adverse effects; and

(2) Potential adverse effects on hydraulically-connected surface-water quality, considering:

(A) The volume and physical and chemical characteristics of the waste is the regulated unit;

(B) The hydrogeological characteristics of the facility and surrounding land;

(C) The quantity and quality of groundwater, and the direction of groundwater flow;

(D) The patterns of rainfall in the region;

(E) The proximity of the regulated unit to surface waters;

(F) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(G) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;

(H) The potential for health risks caused by human exposure to waste constituents;

(I) The potential damage to wildlife, crops, vegetation and physical structures caused by exposure to waste constituents; and

(J) The persistence and permanence of the potential adverse effects.

(c) In making any determination under paragraph (b) about the use of groundwater in the area around the facility the Agency will consider any identification of underground sources of drinking water and exempted aquifers made under 35 Ill. Adm. Code 704.123.

(d) The Agency shall make specific written findings in setting any alternate concentration limits under paragraph (b).

Section 724.195 Point of Compliance.

(a) The Agency will specify in the facility permit the point of compliance at which the groundwater protection standard of Section 724.192 applies and at which monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.

(b) The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit.

(1) The waste management area includes horizontal space taken up by any liner, dike or other barrier designed to contain waste in a regulated unit.

(2) If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

Section 724.196 Compliance Period.

(a) The Agency will specify in the facility permit the compliance period during which the groundwater protection standard of Section 724.192 applies. The compliance period is the number of years equal to the active life of the waste management area (including any waste management activity prior to permitting, and the closure period.)

(b) The compliance period begins when the owner or operator initiates a compliance monitoring program meeting the requirements of Section 724.199.

(c) If the owner or operator is engaged in a corrective action program at the end of the compliance period specified in paragraph (a), the compliance period is extended until the owner or operator can demonstrate that the groundwater protection standard of Section 724.192 has not been exceeded for a period of three consecutive years.

Section 724.197 General Groundwater Monitoring Requirements.

The owner or operator shall comply with the following requirements for any groundwater monitoring program developed to satisfy Section 724.198, 724.199 or 724.200.

(a) The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that:

(1) Represent the quality of background water that has not been affected by leakage from a regulated unit. A determination of background quality may include sampling of wells that are not hydraulically upgradient from the waste management area where:

(A) Hydrogeologic conditions do not allow the owner or operator to determine what wells are upgradient; or

(B) Sampling at other wells will provide an indication of background groundwater quality that is as representative or more representative than that provided by the upgradient wells. And,

(2) Represent the quality of groundwater passing the point of compliance. And,

(3) Allow for the detection of contamination when hazardous waste or hazardous constituents have migrated from the hazardous waste management area to the uppermost aquifer.

(b) If a facility contains more than one regulated unit, separate groundwater monitoring systems are not required for each regulated unit provided that provisions for sampling the groundwater in the uppermost aquifer will enable detection and measurement at the compliance point of hazardous constituents from the regulated units that have entered the groundwater in the uppermost aquifer.

(c) All monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of groundwater samples. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the groundwater.

(d) The groundwater monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of groundwater quality below the waste management area. At a minimum the program must include procedures and techniques for:

(1) Sample collection;

(2) Sample preservation and shipment;

(3) Analytical procedures; and

(4) Chain of custody control.

(e) The groundwater monitoring program must include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents in groundwater samples.

(f) The groundwater monitoring program must include a determination of the groundwater surface elevation each time groundwater is sampled.

(g) In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit will be collected from background wells and wells at the compliance point(s). The number and kinds of samples collected to establish background must be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size must be as large as necessary to ensure with reasonable confidence that a contaminant release to groundwater from a facility will be detected. The owner or operator will determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which must be specified in the unit permit upon approval by the Agency. This sampling procedure must be:

(1) A sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity and hydraulic gradient, and the fate and transport characteristics of the potential contaminants; or

(2) An alternate sampling procedure proposed by the owner or operator and approved by the Agency.

(h) The owner or operator shall specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the Agency, will be specified in the unit permit. The statistical test chosen must be conducted separately for each hazardous constituent in each well. Where practical quantification limits (pql's) are used in any of the following statistical procedures to comply with subsection (i)(5), the pql must be proposed by the owner or operator and approved by the Agency. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in subsection (i).

(1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method submitted by the owner or operator and approved by the Agency.

(i) Any statistical method chosen under subsection (h) for specification in the unit permit must comply with the following performance standards, as appropriate:

(1) The statistical method used to evaluate groundwater monitoring data must be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test must be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experimentwise error rate for each testing period must be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals or control charts.

(3) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter value must be proposed by the owner or operator and approved by the Agency if the Agency finds it to be protective of human health and the environment.

(4) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, must be proposed by the owner or operator and approved by the Agency if the Agency finds these parameters to be protective of human health and the environment. These parameters will be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(5) The statistical method must account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit (pql) approved by the Agency under subsection (h) which is used in the statistical method must be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(6) If necessary, the statistical method must include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(i) Groundwater monitoring data collected in accordance with subsection (g), including actual levels of constituents, must be maintained in the facility operating record. The Agency shall specify in the permit when the data must be submitted for review.

Section 724.198 Detection Monitoring Program.

An owner or operator required to establish a detection monitoring program under this Subpart shall, at a minimum, discharge the following responsibilities:

(a) The owner or operator shall monitor for indicator parameters (e.g., specific conductance, total organic carbon or total organic halogen), waste constituents or reaction products that provide a reliable indication of the presence of hazardous constituents in groundwater. The Agency will specify the parameters or constituents to be monitored in the facility permit, after considering the following factors:

(1) The types, quantities and concentrations of constituents in wastes managed at the regulated unit;

(2) The mobility, stability and persistence of waste constituents or their reaction products in the unsaturated zone beneath the waste management area;

(3) The detectability of indicator parameters, waste constituents and reaction products in groundwater; and

(4) The concentrations or values and coefficients of variation of proposed monitoring parameters or constituents in the groundwater background.

(b) The owner or operator shall install a groundwater monitoring system at the compliance point as specified under Section 724.195. The groundwater monitoring system must comply with Sections 724.197(a)(2), 724.197(b) and 724.197(c).

(c) The owner or operator shall conduct a groundwater monitoring program for each chemical parameter and hazardous constituent specified in the permit pursuant to subsection (a) in accordance with Section 724.197(g). The owner or operator shall maintain a record of groundwater analytical data as measured and in a form necessary for the determination of statistical significance under Section 724.197(h).

(d) The Agency shall specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit under subsection (a) in accordance with Section 724.197(g). A sequence of at least four samples from each well (background and compliance wells) must be collected at least semi-annually during detection monitoring.

(e) The owner or operator shall determine the groundwater flow rate and direction in the uppermost aquifer at least annually.

(f) The owner or operator shall determine whether there is statistically significant evidence of contamination for any chemical parameter or hazardous constituent specified in the permit pursuant to subsection (a) at a frequency specified under subsection (d).

(1) In determining whether statistically significant evidence of contamination exists, the owner or operator shall use the method(s) specified in the permit under Section 724.197(h). These method(s) must compare data collected at the compliance point(s) to the background groundwater quality data.

(2) The owner or operator shall determine whether there is statistically significant evidence of contamination at each monitoring well at the compliance point within a reasonable period of time after completion of sampling. The Agency shall specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

(g) If the owner or operator determines pursuant to subsection (f) that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified pursuant to subsection (a) at any monitoring well at the compliance point, the owner or operator shall:

(1) Notify the Agency of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination.

(2) Immediately sample the groundwater in all monitoring wells and determine whether constituents in the list of Appendix I are present, and if so, in what concentration.

(3) For any Appendix I compounds found in the analysis pursuant to subsection (g)(2), the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents will form the basis for compliance monitoring. If the owner or operator does not resample for the compounds found pursuant to subsection (g)(2), the hazardous constituents found during this initial Appendix I analysis will form the basis for compliance monitoring.

(4) Within 90 days, submit to the Agency an application for a permit modification to establish a compliance monitoring program meeting the requirements of Section 724.199. The application must include the following information:

(A) An identification of the concentration of any Appendix I constituent detected in the groundwater at each monitoring well at the compliance point;

(B) Any proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of Section 724.199;

(C) Any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirement of Section 724.199;

(D) For each hazardous constituent detected at the compliance point, a proposed concentration limit under Section 724.194(a)(1) or (a)(2), or a notice of intent to seek an alternate concentration limit under Section 724.194(b); and

(5) Within 180 days, submit to the Agency:

(A) All data necessary to justify an alternate concentration limit sought under Section 724.194(b); and

(B) An engineering feasibility plan for a corrective action program necessary to meet the requirements of Section 724.200, unless:

(i) All hazardous constituents identified under subsection (g)(2) are listed in Table 1 of Section 724.194 and their concentrations do not exceed the respective values given in that table; or

(ii) The owner or operator has sought an alternate concentration limit under Section 724.194(b) for every hazardous constituent identified under subsection (g)(2).

(6) If the owner or operator determines, pursuant to subsection (f), that there is a statistically significant difference for chemical parameters or hazardous constituents specified pursuant to subsection (a) at any monitoring well at the compliance point, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis or statistical evaluation, or natural variation in the groundwater. The owner or operator may make a demonstration under this subsection in addition to, or in lieu of, submitting a permit modification applicant under subsection (g)(4); however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in subsection (g)(4) unless the demonstration made under this paragraph successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis or evaluation. In making a demonstration under this subsection the owner or operator shall:

(A) Notify the Agency in writing, within seven days of determining statistically significant evidence of contamination at the compliance point, that the owner or operator intends to make a demonstration under this paragraph;

(B) Within 90 days, submit a report to the Agency which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from error in sampling, analysis or evaluation;

(C) Within 90 days, submit to the Agency an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(D) Continue to monitor in accordance with the detection monitoring program established under this Section.

(h) If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this Section, the owner or operator shall, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

Section 724.199 Compliance Monitoring Program

An owner or operator required to establish a compliance monitoring program under this Subpart shall, at a minimum, discharge the following responsibilities:

(a) The owner or operator shall monitor the groundwater to determine whether regulated units are in compliance with the groundwater protection standard under Section 724.192. The Agency will specify the groundwater protection standard in the facility permit, including:

- (1) A list of the hazardous constituents identified under Section 724.193;
- (2) Concentration limits under Section 724.194 for each of those hazardous constituents;
- (3) The compliance point under Section 724.195; and
- (4) The compliance period under Section 724.196.

(b) The owner or operator shall install a groundwater monitoring system at the compliance point as specified under Section 724.195. The groundwater monitoring system must comply with Section 724.197(a)(2), 724.197(b) and 724.197(c).

(c) The Agency shall specify the sampling procedures and statistical methods appropriate for the constituents and facility, consistent with Section 724.197(g) and (h).

(1) The owner or operator shall conduct a sampling program for each chemical parameter or hazardous constituent in accordance with Section 724.297(g).

(2) The owner or operator shall record groundwater analytical data as measured and in a form necessary for the determination of statistical significance under Section 724.197(h) for the compliance period of the facility.

(d) The owner or operator shall determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, pursuant to subsection (a), at a frequency specified under subsection (f).

(1) In determining whether statistically significant evidence of increased contamination exists, the owner or operator shall use the methods specified in the permit under Section 724.197(h). The methods must compare data collected at the compliance points to a concentration limit developed in accordance with Section 724.194.

(2) The owner or operator shall determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of the sampling. The Agency shall specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

(e) The owner or operator shall determine the groundwater flow rate and direction in the uppermost aquifer at least annually.

(f) The Agency shall specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with Section 724.197(g). A sequence of at least four samples from each well (background and compliance wells) must be collected at least semi-annually during the compliance period for the facility.

(g) The owner or operator shall analyze samples from all monitoring wells at the compliance point for all constituents contained in Appendix I at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer and, if so, at what concentration, pursuant to procedures in Section 724.198(f). If the owner or operator finds Appendix I constituents in the groundwater that are not already identified as monitoring constituents, the owner or operator may resample within one month and repeat the Appendix I analysis. If the second analysis confirms the presence of new constituents, the owner or operator shall report the concentration of these additional constituents to the Agency within seven days after the completion of the second analysis, and add them to the monitoring list. If the owner or operator chooses not to resample, then the owner or operator shall report the concentrations of these additional constituents to the Agency within seven days after completion of the initial analysis, and add them to the monitoring list.

(h) If the owner or operator determines, pursuant to subsection (d) that any concentration limits under Section 724.194 are being exceeded at any monitoring well at the point of compliance, the owner or operator shall:

(1) Notify Agency of this finding in writing within seven days. The notification must indicate what concentration limits have been exceeded.

(2) Submit to the Agency an application for a permit modification to establish a corrective action program meeting the requirements to Section 724.200 within 180 days, or within 90 days if an engineering feasibility study has been previously submitted to the Agency under Section 724.198(h)

(5). The application must at a minimum include the following information:

(A) A detailed description of corrective actions that will achieve compliance with the groundwater protection standard specified in the permit under subsection (a); and

(B) A plan for a groundwater monitoring program that will demonstrate the effectiveness of the corrective action. Such a groundwater monitoring program may be based on a compliance monitoring program developed to meet the requirements of this section.

(i) If the owner or operator determines, pursuant to subsection (d), that the groundwater concentration limits under this Section are being exceeded at any monitoring well at the point of compliance, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis or statistical evaluation, or natural variation in groundwater. In making a demonstration under this subsection, the owner or operator shall:

(1) Notify the Agency in writing within seven days that it intends to make a demonstration under this subsection;

(2) Within 90 days, submit a report to the Agency which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis or evaluation;

(3) Within 90 days, submit to the Agency an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and

(4) Continue to monitor in accord with the compliance monitoring program established under this section.

(j) If the owner or operator determines that the compliance monitoring program no longer satisfies the requirements of this Section, the owner or operator shall, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

Section 724.200 Corrective Action Program.

An owner or operator required to establish a corrective action program under this Subpart must, at a minimum, discharge the following responsibilities:

(a) The owner or operator must take corrective action to ensure that regulated units are in compliance with the groundwater protection standard under Section 724.192. The Agency will specify the groundwater protection standard in the facility permit, including:

- (1) A list of the hazardous constituents identified under Section 724.193;
- (2) Concentration limits under Section 724.194 for each of those hazardous constituents;
- (3) The compliance point under Section 724.195; and
- (4) The compliance period under Section 724.196.

(b) The owner or operator must implement a corrective action program that prevents hazardous constituents from exceeding their respective concentration limits at the compliance point by removing the hazardous waste constituents or treating them in place. The permit will specify the specific measures that will be taken.

(c) The owner or operator must begin corrective action within a reasonable time period after the groundwater protection standard is exceeded. The Agency will specify that time period in the facility permit. If a facility permit includes a corrective action program in addition to a compliance monitoring program, the permit will specify when the corrective action will begin and such a requirement will operate in lieu of Section 724.199(i)(2).

(d) In conjunction with a corrective action program, the owner or operator must establish and implement a groundwater monitoring program to demonstrate the effectiveness of the corrective action program. Such a monitoring program may be based on the requirements for a compliance monitoring program under Section 724.199 and must be as effective as that program in determining compliance with the groundwater protection standard under Section 724.192 and in determining the success of a corrective action program under subsection (e) where appropriate.

(e) In addition to the other requirements of this section, the owner or operator must conduct a corrective action program to remove or treat in place any hazardous constituents under Section 724.193 that exceed concentration limits under Section 724.194 in groundwater:

(1) Location.

(A) Between the compliance point under Section 724.195 and the downgradient facility property boundary; and

(B) Beyond the facility boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the Agency that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. The owner and operator are not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis.

(2) The permit will specify the measures to be taken:

(A) Corrective action measures under this paragraph must be initiated and completed within a reasonable period of time considering the extent of contamination.

(B) Corrective action measures under this paragraph may be terminated once the concentration of hazardous constituents under Section 724.193 is reduced to levels below their respective concentration limits under Section 724.194.

(f) The owner or operator must continue corrective action measures during the compliance period to the extent necessary to ensure that the groundwater protection standard is not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, the owner or operator must continue that corrective action for as long as necessary to achieve compliance with the groundwater protection standard. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area (including the closure period) if the owner or operator can demonstrate, based on data from the groundwater monitoring program under subsection (d), that the groundwater protection standard of Section 724.192 has not been exceeded for a period of three consecutive years.

(g) The owner or operator must report in writing to the Agency on the effectiveness of the corrective action program. The owner or operator must submit these reports semi-annually.

(h) If the owner or operator determines that the corrective action program no longer satisfies the requirements of this section, the owner or operator must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

Section 724.201 Corrective Action for Solid Waste Management Units

a) The owner or operator of a facility seeking a permit for the treatment, storage, or disposal of hazardous waste must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.

b) Corrective action will be specified in the permit in accordance with this Section and Subpart S of this Part. The permit will contain schedules of compliance for such corrective action (where such corrective action cannot be completed prior to issuance of the permit) and assurances of financial responsibility for completing such corrective action.

c) The owner or operator shall implement corrective action measures beyond the facility property boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the Agency that, despite the owner or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. The owner and operator are not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action must be provided.

d) The requirements of this Section do not apply to remediation waste management sites unless they are part of a facility subject to a permit for treating, storing, or disposing of hazardous wastes that are not remediation wastes.

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Subchapter c: Hazardous Waste Operating Requirements

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Subpart N: Landfills

Section 724.410 Closure and Post-closure Care.

Section 724.410 Closure and Post-closure Care.

(a) At final closure of the landfill or upon closure of any cell, the owner or operator shall cover the landfill or cell with a final cover designed and constructed to:

- (1) Provide long-term minimization of migration of liquids through the closed landfill;
- (2) Function with minimum maintenance;
- (3) Promote drainage and minimize erosion or abrasion of the cover;
- (4) Accomodate settling and subsidence so that the cover's integrity is maintained; and
- (5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) After final closure, the owner or operator shall comply with all post-closure requirements contained in Sections 724.217 through 724.220, including maintenance and monitoring throughout the post-closure care period (specified in the permit under Section 724.217). The owner or operator shall:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion or other events;

(2) Continue to operate the leachate collection and removal system until leachate is no longer detected;

(3) Maintain and monitor the LDS in accordance with Sections ~~724.401~~(c)(3)(D) and (c)(4) and 724.403(c), and comply with all other applicable LDS requirements of this Part;

(4) Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of Subpart F;

(5) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(6) Protect and maintain surveyed benchmarks used in complying with Section 724.409.

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Subpart G: Closure and Post-Closure

Section 724.217 Post-closure Care and Use of Property.

Section 724.217 Post-closure Care and Use of Property.

(a) Post-closure care period.

(1) Post-closure care for each hazardous waste management unit subject to the requirements of Sections 724.217 through 724.220 must begin after completion of closure of the unit and continue for 30 years after that date and must consist of at least the following:

(A) Monitoring and reporting in accordance with the requirements of Subparts F, K, L, M, N, and X; and

(B) Maintenance and monitoring of waste containment systems in accordance with the requirements of Subparts F, K, L, M, N, and X.

(2) Any time preceding partial closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure care period for a particular unit, the Board will:

(A) Shorten the post-closure care period applicable to the hazardous waste management unit, or facility, if all disposal units have been closed, if the Board finds that the reduced period is sufficient to protect human health and the environment (e.g., leachate or groundwater monitoring results, characteristics of the waste, application of advanced technology or alternative disposal, treatment or re-use techniques indicate that the hazardous waste management unit or facility is secure); or

(B) Extend the post-closure care period applicable to the hazardous waste management unit or facility if the Board finds that the extended period is necessary to protect human health and the environment (e.g., leachate or groundwater monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment).

(C) Reduction or extension of the post-closure care period will be by rulemaking pursuant to 34 Ill. Adm. Code 102.

(b) The Agency shall require, at partial or final closure, continuation of any of the security requirements of Section 724.114 during part or all of the post-closure period when:

(1) Hazardous Wastes may remain exposed after completion of partial or final closure; or

(2) Access by the public or domestic livestock may pose a hazard to human health.

(c) Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s) or any other components of the containment system, or the function of the facility's monitoring systems, unless the Agency finds, by way of a permit modification, that the disturbance:

(1) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(2) Is necessary to reduce a threat to human health or the environment.

(d) All the post-closure care activities must be in accordance with the provisions of the approved post-closure plan as specified in Section 724.218.

Chapter I: Pollution Control BoardSubchapter c: Hazardous Waste Operating Requirements[4 of 17] Part 724 Standards for Owners and Operators of Hazardous Waste Treatment, Storage andSubpart G: Closure and Post-ClosureSection 724.218 Post Closure Care Plan; Amendment of Plan**Section 724.218 Post Closure Care Plan; Amendment of Plan**

a) **Written Plan.** The owner or operator of a hazardous waste disposal unit shall have a written post-closure care plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous wastes at partial or final closure are required by Section 724.328(c)(1)(B) and 724.358(c)(1)(B) to have contingent post-closure care plans. Owners or operators of surface impoundments and waste piles not otherwise required to prepare contingent post-closure care plans under Section 724.328(c)(1)(B) or 724.358(c)(1)(B) shall submit a post-closure care plan to the Agency within 90 days from the date. That the owner or operator or Agency determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of Sections 724.217 through 724.220. The plan must be submitted with the permit application, in accordance with 35 Ill. Adm. Code 703.183, and approved by the Agency as part of the permit issuance proceeding under 35 Ill. Adm. Code 705. In accordance with 35 Ill. Adm. Code 703.241, the approved post-closure care plan will become a condition of any RCRA permit issued.

b) For each hazardous waste management unit subject to the requirements of this Section, the post-closure care plan must identify the activities that will be carried on after closure and the frequency of these activities, and include at least:

1) A description of the planned monitoring activities and frequencies which they will be performed to comply with Subparts F, K, L, M, N, and X during the post-closure care period.

2) A description of the planned maintenance activities, and frequencies at which they will be performed, to ensure:

A) The integrity of the cap and final cover or other containment systems in accordance with the requirements of Subpart F, K, M, and N, and X; and

B) The function of the facility monitoring equipment in accordance with the requirements of F, K, L, M, N, and X.

3) The name, address, and phone number of the person or office to contact about the hazardous disposal unit during the post-closure care period.

4) For a facility where alternative requirements are established at a regulated unit under Section 724.190(f), 724.210(c), or 724.240(d), as provided under 35 Ill. Adm. Code 703.161, either the alternative requirements that apply to the regulated unit, or a reference to the enforceable document containing those requirements.

c) Until final closure of the facility, a copy of the approved post-closure care plan must be furnished to the Agency upon request, including request by mail. After final closure has been certified, the person or office specified in subsection (b)(3) shall keep the approved post-closure care plan during the remainder of the post-closure care period.

d) **Amendment of plan.** The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in the approved post-closure care plan in accordance with the applicable requirements of 35 Ill. Adm. Code 703 and 705. The written notification or request must include a copy of the amended post-closure care plan for review or approval by the Agency.

1) The owner or operator shall submit a written notification or request to the Agency for a permit modification to amend the post-closure care plan at any time during the active life of the facility or during the post-closure care period.

2) The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in the approved post-closure care plan whenever any of the following occurs:

A) Changes in operating plans or facility design affect the post-closure care plan;

B) There is a change in the expected year of closure if applicable;

C) Events occur during the active life of the facility, including partial and final closure that affect the approved post-closure care plan or; or

D) The owner or operator requests establishment of alternative requirements to a regulated unit under Section 724.190(f), 724.210(c), 724.240(d).

3) The owner or operator shall submit a written request for a permit modification at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure care plan. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to submit a contingent post-closure care plan under Section 724.328(c)(1)(B) or 724.358(c)(1)(B) shall submit a post-closure plan to the Agency no later than 90 days after the date that the owner or operator or Agency determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of Section 724.410. The Agency shall approve, disapprove, or modify this plan in accordance with the procedure in 35 Ill. Adm. Code 703 and 705. In accordance with 35 Ill. Adm. Code 703.241, the approved post-closure care plan will become a permit condition.

4) The Agency may request modifications to the plan under the conditions described in subsection (d)(2). The owner or operator shall submit the modified plan no later than 60 days after the request, or no later than 90 days if the unit is a surface impoundment or waste pile not previously required to prepare a contingent post-closure care plan. Any modifications requested by the Agency shall be approved, disapproved, or modified in accordance with the procedure in 35 Ill. Adm. Code 703 and 705.

Chapter I: Pollution Control Board**Subchapter c: Hazardous Waste Operating Requirements****[4 of 17] Part 724 Standards for Owners and Operators of Hazardous Waste Treatment, Storage and****Subpart G: Closure and Post-Closure****Section 724.219 Post-closure Notices.**

Section 724.219 Post-closure Notices.

(a) No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator of a disposal facility shall submit to the Agency, to the County Recorder and to any local zoning authority or authority with jurisdiction over local land use, record of the type, location and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 12, 1981, the owner or operator shall identify the type, location and quantity of the hazardous waste to the best of the owner or operator's knowledge and in accordance with any records the owner or operator has kept.

(b) Within 60 days after certification of closure of the first hazardous waste disposal unit and within 60 days after certification of closure of the last hazardous waste disposal unit, the owner or operator shall:

(1) Record a notation on the deed to the facility property or on some other instrument which is normally examined during title search that will in perpetuity notify any potential purchaser of the property that:

(A) The land has been used to manage hazardous wastes; and

(B) Its use is restricted under this Subpart; and

(C) The survey plat and record of the type, location and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by subsection (a) and Section 724.216 have been filed with the Agency, the County Recorder and any local zoning authority or authority with jurisdiction over local land use; and

(2) Submit a certification, signed by the owner or operator, that the owner or operator has recorded the notation specified in subsection (b)(1), including a copy of the document in which the notation has been placed, to the Agency.

(c) If the owner or operator or any subsequent owner or operator of the land upon which a hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated soils, such person shall request a modification to the post-closure plan in accordance with the applicable requirements in 35 Ill. Adm. Code 703 and 705. The owner and operator shall demonstrate that the removal of hazardous wastes will satisfy the criteria of Section 724.217(c). By removing hazardous waste, the owner or operator may become a generator of hazardous waste and shall manage it in accordance with all applicable requirements of 35 Ill. Adm. Code 703 and 720 through 726. If the owner or operator is granted a permit modification or otherwise granted approval to conduct such removal activities, the owner or operator may request that the Agency approve either:

(1) The removal of the notation on the deed to the facility property or other instrument normally examined during title search; or

(2) The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

Chapter I: Pollution Control BoardSubchapter c: Hazardous Waste Operating Requirements[4 of 17] Part 724 Standards for Owners and Operators of Hazardous Waste Treatment, Storage andSubpart G: Closure and Post-ClosureSection 724.220 Certification of Completion of Post-closure Care.

Section 724.220 Certification of Completion of Post-closure Care.

No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator shall submit to the Agency, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Agency upon request until the Agency releases the owner or operator from the financial assurance requirements for post-closure care under Section 724.245(i).

Title 35: Environmental ProtectionSubtitle G: Waste DisposalChapter I: Pollution Control BoardSubchapter c: Hazardous Waste Operating Requirements[4 of 17] Part 724 Standards for Owners and Operators of Hazardous Waste Treatment, Storage and**[4 of 17] Part 724 Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities****Subpart G: Closure and Post-Closure****Section 724.210 Applicability**

Except as Section 724.101 provides otherwise:

a) Section 724.211 through 724.215 (which concern closure) apply to the owners and operators of all hazardous waste management facilities; and

b) Sections 724.216 through 724.220 (which concern post-closure care) apply to the owners and operators of:

1) All hazardous waste disposal facilities; or

2) Waste piles and surface impoundments from which the owner or operator intends to remove the wastes at closure, to the extent that Sections 724.216 through 724.220 are made applicable to such facilities in Sections 724.328 or 724.358; and

3) Tank systems which are required under Section 724.297 to meet the requirements for landfills; or

4) Containment buildings that are required under Section 724.1102 to meet the requirements for landfills; and

c) A permit or enforceable document can contain alternative requirements that replace all or part of the closure and post-closure care requirements of this Subpart G (and the unit-specific standards referenced in Section 724.211(c) applying to a regulated unit), with alternative requirements set out in a permit or other enforceable document, as provided under 35 Ill. Adm. Code 703.161, where the Board or Agency determines the following:

1) The regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management units (or areas of concern) are likely to have contributed to the release; and

2) It is not necessary to apply the closure requirements of this Subpart G (and those referenced herein) because the alternative requirements will protect human health and the environment and will satisfy the closure performance standard of Section 724.211(a) and (b).

Section 724.211 Closure Performance Standard

The owner or operator shall close the facility in a manner that:

a) Minimizes the need for further maintenance; and

b) Controls, minimizes or eliminates, to the extent necessary to protect to human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off or hazardous decomposition products to the ground or surface waters or to the atmosphere; and

c) Complies with the closure requirements of this Part including, but not limited to, the requirements of Sections 724.278, 724.297, 724.328, 724.358, 724.380, 724.410, 724.451 and 724.701 through 724.703, and 724.1102.

Section 724.212 Closure Plan; Amendment of Plan

a) Written plan.

1) The owner or operator of a hazardous waste management facility shall have a written closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous waste at partial or final closure are required by Sections 724.328(c)(1)(A) and 724.358(c)(1)(A) to have contingent closure plans. The plan must be submitted with the permit application, in accordance with 35 Ill. Adm. Code 703.183, and approved by the Agency as part of the permit issuance proceeding under 35 Ill. Adm. Code 705. In accordance with 35 Ill. Adm. Code 703.241, the approved closure plan will become a condition of any RCRA permit.

2) The Agency's approval of the plan must ensure that the approved closure plan is consistent with Sections 724.211 through 724.215 and the applicable requirements of Sections 724.190 et seq., 724.278, 724.297, 724.328, 724.358, 724.380, 724.410, 724.451 and 724.701, and 724.1102. Until final closure is completed and certified in accordance with Section 724.215, a copy of the approved plan and all approved revisions must be furnished to the Agency upon request, including request by mail.

b) Content of plan. The plan must identify steps necessary to perform partial or final closure the facility at any point during its active life. The closure plan must include, at least:

1) A description of how each hazardous waste management unit at the facility will be closed in accordance with Section 724.211; and

2) A description of how final closure of the facility will be conducted in accordance with Section 724.211. The description must identify the maximum extent of the operations which will be unclosed during the active life of the facility; and

3) An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing or disposing of all hazardous wastes, and identification of the type(s) of off-site hazardous waste management units to be used, if applicable; and

4) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structure, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard; and

5) A detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, groundwater monitoring, leachate collection, and runoff and runoff control; and

6) A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure (For example, in the case of a landfill unit, estimates of the time required to treat and dispose of all hazardous waste inventory and of the time required to place a final cover must be included.) ; and

7) For facilities that use trust funds to establish financial assurance under Section 724.243 or 724.245 and that are expected to close prior to the expiration of the permit, an estimate of the expected year of final closure; and

8) For a facility where alternative requirements are established at a regulated unit under Section 724.190(f), 724.210(c), or 724.240(d), as provided under 35 Ill. Adm. Code 703.161, either the alternative requirements applying to the regulated unit or a reference to the enforceable document containing those alternative requirements.

c) Amendment of the plan. The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in operating plans, facility design or the approved closure plan in accordance with the applicable procedures in 35 Ill. Adm. Code 702, 703 and 705. The written notification or request must include a copy of the amended closure plan for review or approval by the Agency.

1) The owner or operator may submit a written notification or request to the Agency for a permit modification to amend the closure plan at any time prior to notification of partial or final closure of the facility.

2) The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in the approved closure plan whenever:

A) Changes in operating plans or facility design affect the closure plan;

B) There is a change in the expected year of closure, if applicable;

C) In conducting partial or final closure activities, unexpected events require modification of the approved closure plan; or

D) The owner or operator requests the establishment of alternative requirements, as provided under 35 Ill. Adm. Code 703.161, to a regulated unit under Section 724.190(f), 724.210(c), or 724.240(d).

3) The owner or operator shall submit a written request for a permit modification including a copy of the amended closure plan for approval at least 60 days prior to the proposed change in the facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator shall request a permit modification no later than 30 days after the unexpected event. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to prepare a contingent closure plan under Section 724.328(c)(1)(A) or 724.358(c)(1)(A), shall submit an amended closure plan to the Agency no later than 60 days after the date the owner or operator or Agency determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of Section 724.410, or no later than 30 days after that date if the determination is made during partial or final closure. The Agency shall approve, disapprove or modify this amended plan in accordance with the procedures in 35 Ill. Adm. Code 702, 703 and 705. In accordance with 35 Ill. Adm. Code 702.160 and 703.241, the approved closure plan will become a condition of any RCRA permit issued.

4) The Agency may request modifications to the plan under the conditions described in Section 724.212(c)(2). The owner or operator shall submit the modified plan within 60 days after the Agency's request, or within 30 days if the change in facility conditions occurs during partial or final closure. Any modifications requested by the Agency must be approved in accordance with the procedures in 35 Ill. Adm. Code 702, 703, and 705.

d) Notification of partial closure and final closure.

1) The owner or operator shall notify the Agency in writing at least 60 days prior to the date on which the owner or operator expects to begin closure of a surface impoundment, waste pile, land treatment, or landfill unit, or final closure of a facility with such a unit. The owner or operator shall notify the Agency in writing at least 45 days prior to the date on which the owner or operator expects to begin final closure of a facility with only treatment or storage tanks, container storage, or incinerator units to be closed. The owner or operator shall notify the Agency in writing at least 45 days prior to the date on which the owner or operator expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier.

2) The date when the owner or operator "expects to begin closure" must be either:

A) No later than 30 days after the date on which any hazardous waste management unit receives the known final volume of hazardous waste or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous waste. If the owner or operator of a hazardous waste management unit demonstrates to the Agency that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and that the owner and operator have taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Agency shall approve an extension to this one-year limit; or

B) For units meeting the requirements of Section 724.213(d), no later than 30 days after the date on which the hazardous waste management unit receives the final known volume of non-hazardous wastes, or, if there is a reasonable possibility that the hazardous waste management unit will receive additional non-hazardous wastes, no later than one year after the date on which the unit received the most recent volume of non-hazardous wastes. If the owner or operator demonstrates to the Agency that the hazardous waste management unit has the capacity to receive additional non-hazardous wastes and that the owner and operator have taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Agency shall approve an extension to this one-year limit.

3) If the facility's permit is terminated, or if the facility is otherwise ordered, by judicial decree or Board order, to cease receiving hazardous wastes or to close, then the requirements of this subsection do not apply. However, the owner or operator shall close the facility in accordance with the deadlines established in Section 724.213.

e) Removal of wastes and decontamination or dismantling of equipment. Nothing in this Section shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

Section 724.213 Closure; Time Allowed for Closure.

(a) All permits must require that, within 90 days after receiving the final volume of hazardous, or the final volume of non-hazardous wastes, if the owner or operator complies with all the applicable requirements of subsections (d) and (e), at a hazardous waste management unit or facility, the owner or operator treat, remove from the unit or facility, or dispose of onsite, all hazardous wastes in accordance with the approved closure plan, unless the owner or operator makes the following demonstration by way of permit application or modification application. The Agency shall approve a longer period if the owner or operator demonstrates that:

(1) Either:

(A) The activities required to comply with this subsection will, of necessity, take longer than 90 days to complete; or

(B) All of the following:

(i) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes, if the owner or operator complies with subsections (d) and (e); and

(ii) There is a reasonable likelihood that the owner or operator or another person will recommence operation of the hazardous waste management unit or facility within one year; and

(iii) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) The owner or operator has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements.

(b) All permits must require that the owner or operator complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes, if the owner or operator complies with all applicable requirements in subsections (d) and (e), at the hazardous waste management unit or facility, unless the owner or operator makes the following demonstration by way of permit application or modification application. The Agency shall approve a longer closure period if the owner or operator demonstrates that:

(1) Either:

(A) The partial or final closure activities will, of necessity, take longer than 180 days to complete; or

(B) All of the following:

(i) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes, if the owner or operator complies with subsections (d) and (e); and

(ii) There is reasonable likelihood that the owner or operator or another person will recommence operation of the hazardous waste management unit or facility within one year; and

(iii) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) The owner and operator have taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility including compliance with all applicable permit requirements.

(c) The demonstrations referred to in subsections (a)(1) and (b)(1) must be made as follows:

(1) The demonstration in subsection (a) must be made at least 30 days prior to the expiration of the 90-day period in subsection (a); and

(2) The demonstration in subsection (b)(1) must shall be made at least 30 days prior to the expiration of the 180-day period in subsection (b), unless the owner or operator is otherwise subject to deadlines in subsection (d).

(d) Continued receipt of non-hazardous waste. The Agency shall permit an owner or operator to receive only non-hazardous wastes in a landfill, land treatment unit or surface impoundment unit after the final receipt of hazardous wastes at that unit if:

(1) The owner or operator requests a permit modification in compliance with all applicable requirements in 35 Ill. Adm. Code 702, 703 and 705, and in the permit modification request demonstrates that:

(A) The unit has the existing design capacity as indicated on the Part A application to receive non-hazardous wastes; and

(B) There is a reasonable likelihood that the owner or operator or another person will receive non-hazardous wastes in the unit within one year after the final receipt of hazardous wastes; and

(C) The non-hazardous wastes will not be incompatible with any remaining wastes in the unit, or with the facility design and operating requirements of the unit or facility under this Part; and

(D) Closure of the hazardous waste management unit would be incompatible with continued operation of the unit or facility; and

(E) The owner or operator is operating and will continue to operate in compliance with all applicable permit requirements; and

(2) The request to modify the permit includes an amended waste analysis plan, groundwater monitoring and response program, human exposure assessment required under 35 Ill. Adm. Code 703.186, and closure and post-closure plans and updated cost estimates and demonstrations of financial assurance for closure and post-closure care as necessary and appropriate, to reflect any changes due to the presence of hazardous constituents in the non-hazardous wastes, and changes in closure activities, including the expected year of closure if applicable under Section 724.212(b)(7), as a result of the receipt of non-hazardous wastes following the final receipt of hazardous wastes; and

(3) The request to modify the permit includes revisions, as necessary and appropriate, to affected conditions of the permit to account for the receipt of non-hazardous wastes following receipt of the final volume of hazardous wastes; and

(4) The request to modify the permit and the demonstrations referred to in subsections (d)(1) and (2) are submitted to the Agency no later than 120 days prior to the date on which the owner or operator of the facility receives the known final volume of hazardous wastes at the unit, or no later than 90 days after the effective date of this Section, whichever is later.

(e) Surface impoundments. In addition to the requirements in subsection (d), an owner or operator of a hazardous waste surface impoundment which is not in compliance with the liner and leachate collection system requirements in Section 724.321(c), (d) or (e) shall receive non-hazardous wastes only as authorized by an adjusted standard pursuant to this subsection.

(1) The petition for adjusted standard must include:

(A) A plan for removing hazardous wastes; and

(B) A contingent corrective measures plan.

(2) The removal plan must provide for:

(A) Removing all hazardous liquids; and

(B) Removing all hazardous sludges to the extent practicable without impairing the integrity of the liner or liners, if any; and

(C) Removal of hazardous wastes no later than 90 days after the final receipt of hazardous wastes. The Board will allow a longer time, if the owner or operator demonstrates:

(i) That the removal of hazardous wastes will, of necessity, take longer than the allotted period to complete; and

(ii) That an extension will not pose a threat to human health and the environment.

(3) The contingent corrective measures plan:

(A) Must meet the requirements of a corrective action plan under Section 724.199, based upon the assumption that a release has been detected from the unit.

(B) May be a portion of a corrective action plan previously submitted under Section 724.199.

(C) May provide for continued receipt of non-hazardous wastes at the unit following a release only if the owner or operator demonstrates that continued receipt of wastes will not impede corrective action.

(D) Must provide for implementation within one year after a release, or within one year after the grant of the adjusted standard, whichever is later.

(4) Release. A release is a statistically significant increase (or decrease in the case of pH) over background values for detection monitoring parameters or constituents specified in the permit, or over the facility's groundwater protection standard at the point of compliance, if applicable, detected in accordance with the requirements in Subpart F.

(5) In the event of a release, the owner or operator of the unit:

(A) Within 35 days, file with the Board a petition for adjusted standard. If the Board finds that it is necessary to do so in order to protect human health and the environment, the Board will modify the adjusted standard to require the owner or operator to:

(i) Begin to implement the corrective measures plan in less than one year; or,

(ii) Cease the receipt of wastes until the plan has been implemented.

(iii) The Board will retain jurisdiction or condition the adjusted standard so as to require the filing of a new petition to address any required closure pursuant to subsection (e)(7).

(B) Shall implement the contingent corrective measures plan.

(C) May continue to receive wastes at the unit if authorized by the approved contingent measures plan.

(6) Semi-annual report. During the period of corrective action, the owner or operator shall provide semi-annual reports to the Agency which:

(A) Describe the progress of the corrective action program;

(B) Compile all groundwater monitoring data; and

(C) Evaluate the effect of the continued receipt of non-hazardous wastes on the effectiveness of the corrective action.

(7) Required closure. The owner or operator shall commence closure of the unit in accordance with the closure plan and the requirements of this Part if the Board terminates the adjusted standard, or if the adjusted standard terminates pursuant to its terms.

(A) The Board will terminate the adjusted standard if the owner or operator failed to implement corrective action measures in accordance with the approved contingent corrective measures plan; or

(B) The Board will terminate the adjusted standard if the owner or operator fails to make substantial progress in implementing the corrective measures plan and achieving the facility's groundwater protection standard, or background levels if the facility has not yet established a groundwater protection standard; or

(C) The adjusted standard will automatically terminate if the owner or operator fails to implement the removal plan.

(D) The adjusted standard will automatically terminate if the owner or operator fails to timely file a required petition for adjusted standard.

(8) Adjusted standard procedures. The following procedures must be used in granting, modifying or terminating an adjusted standard pursuant to this subsection.

(A) Except as otherwise provided, the owner or operator shall follow the procedures of 35 Ill. Adm. Code 106. Subpart G to petition the Board for an adjusted standard.

(B) Initial justification. The Board will grant an adjusted standard pursuant to subsection (e)(1) if the owner or operator demonstrates that the removal plan and contingent corrective measures plans meet the requirements of subsections (e)(2) and (3).

(C) The Board will include the following conditions in granting an adjusted standard pursuant to subsection (e)(1):

(i) A plan for removing hazardous wastes.

(ii) A requirement that the owner or operator remove hazardous wastes in accordance with the plan.

(iii) A contingent corrective measures plan.

(iv) A requirement that, in the event of a release, the owner or operator shall: within 35 days, file with the Voard a petition for adjusted standard; implement the corrective measures plan; and, file semi-annual reports with the Agency.

(v) A condition that the adjusted standard will terminate if the owner or operator fails to: implement the removal plan; or, timely file a required petition for adjusted standard.

(vi) A requirement that, in the event the adjusted standard is terminated, the owner or operator shall commence closure of the unit in accordance with the requirements of the closure plan and this Part.

(D) Justification in the event of a release. The Board will modify or terminate the adjusted standard pursuant to a petition filed under subsection (e)(5)(A) as provided in that subsection or in subsection (e)(7).

(9) The Agency shall modify the RCRA permit to include the adjusted standard.

(10) The owner or operator may file a permit modification application with a revised closure plan within 15 days after an adjusted standard is terminated.

Section 724.214 Disposal or Decontamination of Equipment, Structures and Soils.

During the partial and final closure periods, all contaminated equipment, structures and soils must be properly disposed of or decontaminated unless otherwise specified in Sections 724.297, 724.328, 724.358, 724.380, or 724.410, or under the authority of sections 724.701 and 724.703. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and shall handle that waste in accordance with all applicable requirements of 35 Ill. Adm. Code 722.

Section 724.215 Certification of Closure.

Within 60 days after completion of closure of each hazardous waste surface impoundment, waste pile, land treatment or landfill unit, and within 60 days after completion of final closure, the owner or operator shall submit to the Agency, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Agency upon request until the Agency releases the owner or operator from the financial assurance requirements for closure under Section 724.243(i).

Section 724.216 Survey Plat.

No later than the submission of the certification of closure of each hazardous waste disposal unit, the owner or operator shall submit to any local zoning authority, or authority with jurisdiction over local land use, and to the Agency, and record with land titles, a survey plat indicating the location and dimensions of landfills cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use, must contain a note, prominently displayed, which states the owner's and operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable Subpart G regulations.

Section 724.217 Post-closure Care and Use of Property.

(a) Post-closure care period.

(1) Post-closure care for each hazardous waste management unit subject to the requirements of Sections 724.217 through 724.220 must begin after completion of closure of the unit and continue for 30 years after that date and must consist of at least the following:

(A) Monitoring and reporting in accordance with the requirements of Subparts F, K, L, M, N, and X; and

(B) Maintenance and monitoring of waste containment systems in accordance with the requirements of Subparts F, K, L, M, N, and X.

(2) Any time preceding partial closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure care period for a particular unit, the Board will:

(A) Shorten the post-closure care period applicable to the hazardous waste management unit, or facility, if all disposal units have been closed, if the Board finds that the reduced period is sufficient to protect human health and the environment (e.g., leachate or groundwater monitoring results, characteristics of the waste, application of advanced technology or alternative disposal, treatment or re-use techniques indicate that the hazardous waste management unit or facility is secure); or

(B) Extend the post-closure care period applicable to the hazardous waste management unit or facility if the Board finds that the extended period is necessary to protect human health and the environment (e.g., leachate or groundwater monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment).

(C) Reduction or extension of the post-closure care period will be by rulemaking pursuant to 34 Ill. Adm. Code 102.

(b) The Agency shall require, at partial or final closure, continuation of any of the security requirements of Section 724.114 during part or all of the post-closure period when:

(1) Hazardous Wastes may remain exposed after completion of partial or final closure; or

(2) Access by the public or domestic livestock may pose a hazard to human health.

(c) Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s) or any other components of the containment system, or the function of the facility's monitoring systems, unless the Agency finds, by way of a permit modification, that the disturbance:

(1) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(2) Is necessary to reduce a threat to human health or the environment.

(d) All the post-closure care activities must be in accordance with the provisions of the approved post-closure plan as specified in Section 724.218.

Section 724.218 Post Closure Care Plan; Amendment of Plan

a) Written Plan. The owner or operator of a hazardous waste disposal unit shall have a written post-closure care plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous wastes at partial or final closure are required by Section 724.328(c)(1)(B) and 724.358(c)(1)(B) to have contingent post-closure care plans. Owners or operators of surface impoundments and waste piles not otherwise required to prepare contingent post-closure care plans under Section 724.328(c)(1)(B) or 724.358(c)(1)(B) shall submit a post-closure care plan to the Agency within 90 days from the date. That the owner or operator or Agency determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of Sections 724.217 through 724.220. The plan must be submitted with the permit application, in accordance with 35 Ill. Adm. Code 703.183, and approved by the Agency as part of the permit issuance proceeding under 35 Ill. Adm. Code 705. In accordance with 35 Ill. Adm. Code 703.241, the approved post-closure care plan will become a condition of any RCRA permit issued.

b) For each hazardous waste management unit subject to the requirements of this Section, the post-closure care plan must identify the activities that will be carried on after closure and the frequency of these activities, and include at least:

1) A description of the planned monitoring activities and frequencies which they will be performed to comply with Subparts F, K, L, M, N, and X during the post-closure care period.

2) A description of the planned maintenance activities, and frequencies at which they will be performed, to ensure:

A) The integrity of the cap and final cover or other containment systems in accordance with the requirements of Subpart F, K, M, and N, and X; and

B) The function of the facility monitoring equipment in accordance with the requirements of F, K, L, M, N, and X.

3) The name, address, and phone number of the person or office to contact about the hazardous disposal unit during the post-closure care period.

4) For a facility where alternative requirements are established at a regulated unit under Section 724.190(f), 724.210(c), or 724.240(d), as provided under 35 Ill. Adm. Code 703.161, either the alternative requirements that apply to the regulated unit, or a reference to the enforceable document containing those requirements.

c) Until final closure of the facility, a copy of the approved post-closure care plan must be furnished to the Agency upon request, including request by mail. After final closure has been certified, the person or office specified in subsection (b)(3) shall keep the approved post-closure care plan during the remainder of the post-closure care period.

d) Amendment of plan. The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in the approved post-closure care plan in accordance with the applicable requirements of 35 Ill. Adm. Code 703 and 705. The written notification or request must include a copy of the amended post-closure care plan for review or approval by the Agency.

1) The owner or operator shall submit a written notification or request to the Agency for a permit modification to amend the post-closure care plan at any time during the active life of the facility or during the post-closure care period.

2) The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in the approved post-closure care plan whenever any of the following occurs:

A) Changes in operating plans or facility design affect the post-closure care plan;

B) There is a change in the expected year of closure if applicable;

C) Events occur during the active life of the facility, including partial and final closure that affect the approved post-closure care plan or; or

D) The owner or operator requests establishment of alternative requirements to a regulated unit under Section 724.190(f), 724.210(c), 724.240(d).

3) The owner or operator shall submit a written request for a permit modification at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure care plan. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to submit a contingent post-closure care plan under Section 724.328(c)(1)(B) or 724.358(c)(1)(B) shall submit a post-closure plan to the Agency no later than 90 days after the date that the owner or operator or Agency determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of Section 724.410. The Agency shall approve, disapprove, or modify this plan in accordance with the procedure in 35 Ill. Adm. Code 703 and 705. In accordance with 35 Ill. Adm. Code 703.241, the approved post-closure care plan will become a permit condition.

4) The Agency may request modifications to the plan under the conditions described in subsection (d)(2). The owner or operator shall submit the modified plan no later than 60 days after the request, or no later than 90 days if the unit is a surface impoundment or waste pile not previously required to prepare a contingent post-closure care plan. Any modifications requested by the Agency shall be approved, disapproved, or modified in accordance with the procedure in 35 Ill. Adm. Code 703 and 705.

Section 724.219 Post-closure Notices.

(a) No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator of a disposal facility shall submit to the Agency, to the County Recorder and to any local zoning authority or authority with jurisdiction over local land use, record of the type, location and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 12, 1981, the owner or operator shall identify the type, location and quantity of the hazardous waste to the best of the owner or operator's knowledge and in accordance with any records the owner or operator has kept.

(b) Within 60 days after certification of closure of the first hazardous waste disposal unit and within 60 days after certification of closure of the last hazardous waste disposal unit, the owner or operator shall:

(1) Record a notation on the deed to the facility property or on some other instrument which is normally examined during title search that will in perpetuity notify any potential purchaser of the property that:

(A) The land has been used to manage hazardous wastes; and

(B) Its use is restricted under this Subpart; and

(C) The survey plat and record of the type, location and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by subsection (a) and Section 724.216 have been filed with the Agency, the County Recorder and any local zoning authority or authority with jurisdiction over local land use; and

(2) Submit a certification, signed by the owner or operator, that the owner or operator has recorded the notation specified in subsection (b)(1), including a copy of the document in which the notation has been placed, to the Agency.

(c) If the owner or operator or any subsequent owner or operator of the land upon which a hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated soils, such person shall request a modification to the post-closure plan in accordance with the applicable requirements in 35 Ill. Adm. Code 703 and 705. The owner and operator shall demonstrate that the removal of hazardous wastes will satisfy the criteria of Section 724.217(c). By removing hazardous waste, the owner or operator may become a generator of hazardous waste and shall manage it in accordance with all applicable requirements of 35 Ill. Adm. Code 703 and 720 through 726. If the owner or operator is granted a permit modification or otherwise granted approval to conduct such removal activities, the owner or operator may request that the Agency approve either:

(1) The removal of the notation on the deed to the facility property or other instrument normally examined during title search; or

(2) The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

Section 724.220 Certification of Completion of Post-closure Care.

No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator shall submit to the Agency, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Agency upon request until the Agency releases the owner or operator from the financial assurance requirements for post-closure care under Section 724.245(i).

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Subpart G: Closure and Post-Closure

Section 724.211 Closure Performance Standard

Section ▶724.211◀ Closure Performance Standard

The owner or operator shall close the facility in a manner that:

a) Minimizes the need for further maintenance; and

b) Controls, minimizes or eliminates, to the extent necessary to protect to human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off or hazardous decomposition products to the ground or surface waters or to the atmosphere; and

c) Complies with the closure requirements of this Part including, but not limited to, the requirements of Sections 724.278, 724.297, 724.328, 724.358, 724.380, 724.410, 724.451 and 724.701 through 724.703, and 724.1102.

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Subpart G: Closure and Post-Closure

Section 724.212 Closure Plan; Amendment of Plan

Section 724.212 Closure Plan; Amendment of Plan

a) Written plan.

1) The owner or operator of a hazardous waste management facility shall have a written closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous waste at partial or final closure are required by Sections 724.328(c)(1)(A) and 724.358(c)(1)(A) to have contingent closure plans. The plan must be submitted with the permit application, in accordance with 35 Ill. Adm. Code 703.183, and approved by the Agency as part of the permit issuance proceeding under 35 Ill. Adm. Code 705. In accordance with 35 Ill. Adm. Code 703.241, the approved closure plan will become a condition of any RCRA permit.

2) The Agency's approval of the plan must ensure that the approved closure plan is consistent with Sections 724.211 through 724.215 and the applicable requirements of Sections 724.190 et seq., 724.278, 724.297, 724.328, 724.358, 724.380, 724.410, 724.451 and 724.701, and 724.1102. Until final closure is completed and certified in accordance with Section 724.215, a copy of the approved plan and all approved revisions must be furnished to the Agency upon request, including request by mail.

b) Content of plan. The plan must identify steps necessary to perform partial or final closure the facility at any point during its active life. The closure plan must include, at least:

1) A description of how each hazardous waste management unit at the facility will be closed in accordance with Section 724.211; and

2) A description of how final closure of the facility will be conducted in accordance with Section 724.211. The description must identify the maximum extent of the operations which will be unclosed during the active life of the facility; and

3) An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing or disposing of all hazardous wastes, and identification of the type(s) of off-site hazardous waste management units to be used, if applicable; and

4) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structure, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard; and

5) A detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, groundwater monitoring, leachate collection, and runoff and runoff control; and

6) A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure (For example, in the case of a landfill unit, estimates of the time required to treat and dispose of all hazardous waste inventory and of the time required to place a final cover must be included.); and

7) For facilities that use trust funds to establish financial assurance under Section 724.243 or 724.245 and that are expected to close prior to the expiration of the permit, an estimate of the expected year of final closure; and

8) For a facility where alternative requirements are established at a regulated unit under Section 724.190(f), 724.210(c), or 724.240(d), as provided under 35 Ill. Adm. Code 703.161, either the alternative requirements applying to the regulated unit or a reference to the enforceable document containing those alternative requirements.

c) Amendment of the plan. The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in operating plans, facility design or the approved closure plan in accordance with the applicable procedures in 35 Ill. Adm. Code 702, 703 and 705. The written notification or request must include a copy of the amended closure plan for review or approval by the Agency.

1) The owner or operator may submit a written notification or request to the Agency for a permit modification to amend the closure plan at any time prior to notification of partial or final closure of the facility.

2) The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in the approved closure plan whenever:

A) Changes in operating plans or facility design affect the closure plan;

B) There is a change in the expected year of closure, if applicable;

C) In conducting partial or final closure activities, unexpected events require modification of the approved closure plan; or

D) The owner or operator requests the establishment of alternative requirements, as provided under 35 Ill. Adm. Code 703.161, to a regulated unit under Section 724.190(f), 724.210(c), or 724.240(d).

3) The owner or operator shall submit a written request for a permit modification including a copy of the amended closure plan for approval at least 60 days prior to the proposed change in the facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator shall request a permit modification no later than 30 days after the unexpected event. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to prepare a contingent closure plan under Section 724.328(c)(1)(A) or 724.358(c)(1)(A), shall submit an amended closure plan to the Agency no later than 60 days after the date the owner or operator or Agency determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of Section 724.410, or no later than 30 days after that date if the determination is made during partial or final closure. The Agency shall approve, disapprove or modify this amended plan in accordance with the procedures in 35 Ill. Adm. Code 702, 703 and 705. In accordance with 35 Ill. Adm. Code 702.160 and 703.241, the approved closure plan will become a condition of any RCRA permit issued.

4) The Agency may request modifications to the plan under the conditions described in Section 724.212(c)(2). The owner or operator shall submit the modified plan within 60 days after the Agency's request, or within 30 days if the change in facility conditions occurs during partial or final closure. Any modifications requested by the Agency must be approved in accordance with the procedures in 35 Ill. Adm. Code 702, 703, and 705.

d) Notification of partial closure and final closure.

1) The owner or operator shall notify the Agency in writing at least 60 days prior to the date on which the owner or operator expects to begin closure of a surface impoundment, waste pile, land treatment, or landfill unit, or final closure of a facility with such a unit. The owner or operator shall notify the Agency in writing at least 45 days prior to the date on which the owner or operator expects to begin final closure of a facility with only treatment or storage tanks, container storage, or incinerator units to be closed. The owner or operator shall notify the Agency in writing at least 45 days prior to the date on which the owner or operator expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier.

2) The date when the owner or operator "expects to begin closure" must be either:

A) No later than 30 days after the date on which any hazardous waste management unit receives the known final volume of hazardous waste or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous waste. If the owner or operator of a hazardous waste management unit demonstrates to the Agency that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and that the owner and operator have taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Agency shall approve an extension to this one-year limit; or

B) For units meeting the requirements of Section 724.213(d), no later than 30 days after the date on which the hazardous waste management unit receives the final known volume of non-hazardous wastes, or, if there is a reasonable possibility that the hazardous waste management unit will receive additional non-hazardous wastes, no later than one year after the date on which the unit received the most recent volume of non-hazardous wastes. If the owner or operator demonstrates to the Agency that the hazardous waste management unit has the capacity to receive additional non-hazardous wastes and that the owner and operator have taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Agency shall approve an extension to this one-year limit.

3) If the facility's permit is terminated, or if the facility is otherwise ordered, by judicial decree or Board order, to cease receiving hazardous wastes or to close, then the requirements of this subsection do not apply. However, the owner or operator shall close the facility in accordance with the deadlines established in Section 724.213.

e) Removal of wastes and decontamination or dismantling of equipment. Nothing in this Section shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

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Section 724.213 Closure; Time Allowed for Closure.

Section 724.213 Closure; Time Allowed for Closure.

(a) All permits must require that, within 90 days after receiving the final volume of hazardous, or the final volume of non-hazardous wastes, if the owner or operator complies with all the applicable requirements of subsections (d) and (e), at a hazardous waste management unit or facility, the owner or operator treat, remove from the unit or facility, or dispose of onsite, all hazardous wastes in accordance with the approved closure plan, unless the owner or operator makes the following demonstration by way of permit application or modification application. The Agency shall approve a longer period if the owner or operator demonstrates that:

(1) Either:

(A) The activities required to comply with this subsection will, of necessity, take longer than 90 days to complete; or

(B) All of the following:

(i) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes, if the owner or operator complies with subsections (d) and (e); and

(ii) There is a reasonable likelihood that the owner or operator or another person will recommence operation of the hazardous waste management unit or facility within one year; and

(iii) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) The owner or operator has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements.

(b) All permits must require that the owner or operator complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes, if the owner or operator complies with all applicable requirements in subsections (d) and (e), at the hazardous waste management unit or facility, unless the owner or operator makes the following demonstration by way of permit application or modification application. The Agency shall approve a longer closure period if the owner or operator demonstrates that:

(1) Either:

(A) The partial or final closure activities will, of necessity, take longer than 180 days to complete; or

(B) All of the following:

(i) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes, if the owner or operator complies with subsections (d) and (e); and

(ii) There is reasonable likelihood that the owner or operator or another person will recommence operation of the hazardous waste management unit or facility within one year; and

(iii) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) The owner and operator have taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility including compliance with all applicable permit requirements.

(c) The demonstrations referred to in subsections (a)(1) and (b)(1) must be made as follows:

(1) The demonstration in subsection (a) must be made at least 30 days prior to the expiration of the 90-day period in subsection (a); and

(2) The demonstration in subsection (b)(1) must shall be made at least 30 days prior to the expiration of the 180-day period in subsection (b), unless the owner or operator is otherwise subject to deadlines in subsection (d).

(d) Continued receipt of non-hazardous waste. The Agency shall permit an owner or operator to receive only non-hazardous wastes in a landfill, land treatment unit or surface impoundment unit after the final receipt of hazardous wastes at that unit if:

(1) The owner or operator requests a permit modification in compliance with all applicable requirements in 35 Ill. Adm. Code 702, 703 and 705, and in the permit modification request demonstrates that:

(A) The unit has the existing design capacity as indicated on the Part A application to receive non-hazardous wastes; and

(B) There is a reasonable likelihood that the owner or operator or another person will receive non-hazardous wastes in the unit within one year after the final receipt of hazardous wastes; and

(C) The non-hazardous wastes will not be incompatible with any remaining wastes in the unit, or with the facility design and operating requirements of the unit or facility under this Part; and

(D) Closure of the hazardous waste management unit would be incompatible with continued operation of the unit or facility; and

(E) The owner or operator is operating and will continue to operate in compliance with all applicable permit requirements; and

(2) The request to modify the permit includes an amended waste analysis plan, groundwater monitoring and response program, human exposure assessment required under 35 Ill. Adm. Code 703.186, and closure and post-closure plans and updated cost estimates and demonstrations of financial assurance for closure and post-closure care as necessary and appropriate, to reflect any changes due to the presence of hazardous constituents in the non-hazardous wastes, and changes in closure activities, including the expected year of closure if applicable under Section 724.212(b)(7), as a result of the receipt of non-hazardous wastes following the final receipt of hazardous wastes; and

(3) The request to modify the permit includes revisions, as necessary and appropriate, to affected conditions of the permit to account for the receipt of non-hazardous wastes following receipt of the final volume of hazardous wastes; and

(4) The request to modify the permit and the demonstrations referred to in subsections (d)(1) and (2) are submitted to the Agency no later than 120 days prior to the date on which the owner or operator of the facility receives the known final volume of hazardous wastes at the unit, or no later than 90 days after the effective date of this Section, whichever is later.

(e) Surface impoundments. In addition to the requirements in subsection (d), an owner or operator of a hazardous waste surface impoundment which is not in compliance with the liner and leachate collection system requirements in Section 724.321(c), (d) or (e) shall receive non-hazardous wastes only as authorized by an adjusted standard pursuant to this subsection.

(1) The petition for adjusted standard must include:

(A) A plan for removing hazardous wastes; and

(B) A contingent corrective measures plan.

(2) The removal plan must provide for:

(A) Removing all hazardous liquids; and

(B) Removing all hazardous sludges to the extent practicable without impairing the integrity of the liner or liners, if any; and

(C) Removal of hazardous wastes no later than 90 days after the final receipt of hazardous wastes. The Board will allow a longer time, if the owner or operator demonstrates:

(i) That the removal of hazardous wastes will, of necessity, take longer than the allotted period to complete; and

(ii) That an extension will not pose a threat to human health and the environment.

(3) The contingent corrective measures plan:

(A) Must meet the requirements of a corrective action plan under Section 724.199, based upon the assumption that a release has been detected from the unit.

(B) May be a portion of a corrective action plan previously submitted under Section 724.199.

(C) May provide for continued receipt of non-hazardous wastes at the unit following a release only if the owner or operator demonstrates that continued receipt of wastes will not impede corrective action.

(D) Must provide for implementation within one year after a release, or within one year after the grant of the adjusted standard, whichever is later.

(4) Release. A release is a statistically significant increase (or decrease in the case of pH) over background values for detection monitoring parameters or constituents specified in the permit, or over the facility's groundwater protection standard at the point of compliance, if applicable, detected in accordance with the requirements in Subpart F.

(5) In the event of a release, the owner or operator of the unit:

(A) Within 35 days, file with the Board a petition for adjusted standard. If the Board finds that it is necessary to do so in order to protect human health and the environment, the Board will modify the adjusted standard to require the owner or operator to:

(i) Begin to implement the corrective measures plan in less than one year; or,

(ii) Cease the receipt of wastes until the plan has been implemented.

(iii) The Board will retain jurisdiction or condition the adjusted standard so as to require the filing of a new petition to address any required closure pursuant to subsection (e)(7).

(B) Shall implement the contingent corrective measures plan.

(C) May continue to receive wastes at the unit if authorized by the approved contingent measures plan.

(6) Semi-annual report. During the period of corrective action, the owner or operator shall provide semi-annual reports to the Agency which:

(A) Describe the progress of the corrective action program;

(B) Compile all groundwater monitoring data; and

(C) Evaluate the effect of the continued receipt of non-hazardous wastes on the effectiveness of the corrective action.

(7) Required closure. The owner or operator shall commence closure of the unit in accordance with the closure plan and the requirements of this Part if the Board terminates the adjusted standard, or if the adjusted standard terminates pursuant to its terms.

(A) The Board will terminate the adjusted standard if the owner or operator failed to implement corrective action measures in accordance with the approved contingent corrective measures plan; or

(B) The Board will terminate the adjusted standard if the owner or operator fails to make substantial progress in implementing the corrective measures plan and achieving the facility's groundwater protection standard, or background levels if the facility has not yet established a groundwater protection standard; or

(C) The adjusted standard will automatically terminate if the owner or operator fails to implement the removal plan.

(D) The adjusted standard will automatically terminate if the owner or operator fails to timely file a required petition for adjusted standard.

(8) Adjusted standard procedures. The following procedures must be used in granting, modifying or terminating an adjusted standard pursuant to this subsection.

(A) Except as otherwise provided, the owner or operator shall follow the procedures of 35 Ill. Adm. Code 106, Subpart G to petition the Board for an adjusted standard.

(B) Initial justification. The Board will grant an adjusted standard pursuant to subsection (e)(1) if the owner or operator demonstrates that the removal plan and contingent corrective measures plans meet the requirements of subsections (e)(2) and (3).

(C) The Board will include the following conditions in granting an adjusted standard pursuant to subsection (e)(1):

(i) A plan for removing hazardous wastes.

(ii) A requirement that the owner or operator remove hazardous wastes in accordance with the plan.

(iii) A contingent corrective measures plan.

(iv) A requirement that, in the event of a release, the owner or operator shall: within 35 days, file with the Board a petition for adjusted standard; implement the corrective measures plan; and, file semi-annual reports with the Agency.

(v) A condition that the adjusted standard will terminate if the owner or operator fails to: implement the removal plan; or, timely file a required petition for adjusted standard.

(vi) A requirement that, in the event the adjusted standard is terminated, the owner or operator shall commence closure of the unit in accordance with the requirements of the closure plan and this Part.

(D) Justification in the event of a release. The Board will modify or terminate the adjusted standard pursuant to a petition filed under subsection (e)(5)(A) as provided in that subsection or in subsection (e)(7).

(9) The Agency shall modify the RCRA permit to include the adjusted standard.

(10) The owner or operator may file a permit modification application with a revised closure plan within 15 days after an adjusted standard is terminated.

Chapter I: Pollution Control BoardSubchapter c: Hazardous Waste Operating Requirements[4 of 17] Part 724 Standards for Owners and Operators of Hazardous Waste Treatment, Storage andSubpart G: Closure and Post-ClosureSection 724.214 Disposal or Decontamination of Equipment, Structures and Soils.

Section 724.214 Disposal or Decontamination of Equipment, Structures and Soils.

During the partial and final closure periods, all contaminated equipment, structures and soils must be properly disposed of or decontaminated unless otherwise specified in Sections 724.297, 724.328, 724.358, 724.380, or 724.410, or under the authority of sections 724.701 and 724.703. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and shall handle that waste in accordance with all applicable requirements of 35 Ill. Adm. Code 722.

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Section 724.215 Certification of Closure.

Section 724.215 Certification of Closure.

Within 60 days after completion of closure of each hazardous waste surface impoundment, waste pile, land treatment or landfill unit, and within 60 days after completion of final closure, the owner or operator shall submit to the Agency, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Agency upon request until the Agency releases the owner or operator from the financial assurance requirements for closure under Section 724.243(i).

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Subpart G: Closure and Post-Closure

Section 724.216 Survey Plat.

Section 724.216 Survey Plat.

No later than the submission of the certification of closure of each hazardous waste disposal unit, the owner or operator shall submit to any local zoning authority, or authority with jurisdiction over local land use, and to the Agency, and record with land titles, a survey plat indicating the location and dimensions of landfills cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use, must contain a note, prominently displayed, which states the owner's and operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable Subpart G regulations.
